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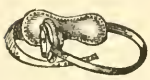

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Original Contributions.

ARTICLE XX.

ANUERISM OF THE FEMORAL ARTERY. BY JOHN T. HODGEN, M. D., of St. Louis, Mo.

In 1868 M. W., a music instrument maker, while using a small knife, thrust it into the right thigh to the middle of the inner side. The cut was transverse. The wound bled freely, the patient was much weakened, but the flow was checked readily and bled no more. In 1871 a pulsating tumor, having a marked thrill and a distinct murmur, was observed at the site of the wound. I saw the case with Dr. Hermann. From the impulse thrill, the loud murmur and vibration along the femoral vein, we concluded that it was a case of aneurismal varix. As the patient had no special discomfort from it, he was advised to let it alone. I saw the patient a number of times between that day and the present. The tumor was gradually enlarging, and during the past year, the whole limb has become enlarged and painful. Dr. Hermann advised him to wear an elastic stocking extending to the groin.

Febrnary 8, 1880, the tumor was as large as the head of a child one year old, and although it extended down to a point opposite the original wound in the thigh, its bulk was situated

above that point, and was decidedly on the inner side of the thigh, but it presented also in front.

The pulsation, thrill and murmur were very distinct. The femoral artery was large, and could be traced on the front of the tumor as a distinct pulsating line. The vein also was distinctly recognized, and could be distinguished from the artery by the presence of an intense thrill. Both were found enlarged as they were continuous with the iliac vessels. February 8, 1880, with a hope of establishing a free collateral circulation, I applied pressure by means of a weight to the artery as it passed over the pubis. This was continued five hours. At the end of that time, the tumor was firm; pulsation had ceased; murmur could not be heard. There was no thrill except when the finger was placed directly over the vein. Each vessel together with the artery could be traced distinctly down to the lower part of the tumor.

February 9th, tumor remained firm; was less so on the 10th; pulsation gradually extended over a large surface, until the 15th, when it was found pulsating as freely, and was as soft as it had been before the application of pressure. On this day the pressure was again applied for five hours, with the same immediate effect as on the first occasion.

On the 22nd the pressure was repeated and continued during the same period. On the 29th pressure was again applied. Less firmness followed of tumor than during and after the first applications. On the 20th of March the limb was hot, and more swollen; 29th of March after consulting with Drs. Gregory, Mudd and Hermann, and assisted by Drs. Luedeking and Dewey, I ligated the femoral artery, as it passed in front of the tumor and four inches below Poupart's ligament. The thrill, murmur and pulsation were diminished though they still continue quite distinct.

A distinct line of pulsation passing along the inner side of the artery ligated, indicated the presence of another vessel. On passing the finger on the lower end of it, it was found it pulsated above. It was determined to ligate this vessel also. It was readily reached by the same cut, and a ligature passed around it. The last vessel ligated was about the size of the ring finger. The first about the size of the little finger. On tightening the ligature on the second vessel, pulsation, thrill and murmur entirely disappeared, the tumor diminished rapidly, and in a few moments the skin was quite lax and wrinkled. The

limb was wrapped in flannels. Two hours later the temperature to the hand seemed below the normal standard. Six hours afterwards the limb appeared to be normal in temperature and was very much wrinkled. Patient comfortable and free from the painful tension of which he had complained before the operation. He took during the next twenty-four hours a grain of morphine, and was comfortable. Temperature good. Has taken some soup, and relished it. Ordered five grains of quinine every eight hours. No fever.

March 31st—Progressing favorably.

April 1st—Limb a little more swollen, with some general fever and heat of the limb.

April 2d—Pulsation is felt in the line of the ligated vessels, extending down to the point of ligation.

April 3d—The toes are blue and cold. Quinine was given, five grains every six hours.

April 4th—Blebs on the ankle. Foot cold.

April 5th—Condition about as on the 4th, with the odor of decomposition.

April 6th—General condition has been good since the operation except a little fever. Pulse 94.

April 6th, 8 P. M.—Patient perspiring freely and has an anxious, pallid look. Pulse is wavy. Continued the quinine. The patient has taken a fair quantity of food every day since the operation.

April 7th—Mortification extending up the leg. General condition same as on the 6th.

April 8th—Patient is cheerful—fair appetite—sleeps well. Foot still withering. Tumor a little smaller.

April 12th—General condition good. Patient cheerful; eats well. Pulse 80. Taking quinine, five grains every five hours. Limbs separating six inches above ankle. Tumor smaller. Pulsation less in the vessels.

April 16th—Condition much the same as before mentioned. Pulse has ceased in the vessels. The ligature separated. Dead foot was removed at the ankle-joint without the knowledge of the patient.

April 20th—Condition less favorable. Strength has appreciably failed. Appetite not so good. Wound made for ligation not healed. Remains clean. Furnishes healthy pus. Soft parts

have separated from the bone of the leg, leaving them exposed five or six inches.

April 23rd—Has bed sores on the sacrum. Dr. Hermann put the patient in water bath—temperature 98. Rests well in the bath.

April 24th—Slept well last night.

April 25th—Passed a good night and slept well. General condition more favorable. Suffering from a little twitching in the right limb.

May 4th—Bath continued. Water partly removed each day and renewed.

May 5th—Water entirely changed to-day. Patient was taken out and placed on the bed. Improved in strength and flesh. Wound made for ligation is contracting. Tumor much less. Patient is cheerful and happy.

May 8th—Spines on dorsal vertebræ begin to be tender from pressure on the strips that support his back in the bath.

May 10th—Removed from the water bath to bed; has improved; bed sores have improved in appearance; feels anxious to have the limb amputated; slough is still extending, but slowly.

May 11th—While in the water bath seemed weak during the night; growing worse; at 4 A. M. it was observed that the water was bloody. He was at once removed from the bath. A bleeding point was observed upon outer side of the leg at the point of slough. Bleeding has ceased. At 8 A. M. I was called and found the patient pulseless. Died at 3:30 A. M. Post mortem examination five and one-half hours after death. The soft parts had entirely separated from bone as high as the middle of the leg. Sloughing had continued gradually until it had reached the junction of the upper and middle third. The tumor, which had not pulsated since the day of operation, is soft. Somewhat reduced in size. The wound made in the application of the ligature was healing nicely, with a margin of new epithelium one half inch wide all along the border. Incision was made from Poupart's ligament down to the inner condyle. The skin and subcutaneous tissue removed to the sac. The sartorius spread out on the tumor three inches in width. The artery had been reached through its outer border. The grasalis was also spread out and thin on its inner side. The sac passed deeply to the bone, and was in front of the adductors. The rectus femoris and

vastus internus being on the outer side, the tumor extending from near Poupart's ligament to within three inches of the knee joint; measured six inches in diameter. Sac was thin, and of condensed areolar tissue, without laminæ of fibrin within. Fibrinous deposit of perhaps about eight ounces in the sac; also, fluid portions with dark liquid blood, and an earthy looking coagulated granular blood. On examination of the vessels ligated it was found that one was the femoral vein. A peculiarity not explained by the post mortem examination is found in the fact that the first vessel which was ligated was the artery, did not result in the complete cessation of the pulsation. That the tumor did not gradually diminish in size; that the thrill and murmur did not entirely cease, and before the ligation of the second vessel it was distinctly observed that the blood passed in a downward direction through it; that the pulsation and thrill continued; that immediately upon ligating the second vessel pulsation, thrill, murmur, all disappeared; the tumor rapidly diminished; the skin became shrunken in a few moments, and, in the course of twenty-four hours, the limb was reduced to nearly one-half its former size, indicaing, perhaps, that there must have existed a communication between the iliac artery and the iliac vein, and that, when the artery was tied, the femoral vein, assuming the function of an artery, and carried the blood into the tumor.

Proceedings of Medical Societies.

TRI-STATE MEDICAL SOCIETY.

ON THE THERAPY OF THE WATERS OF HOT SPRINGS, ARKANSAS, AND THEIR RELATION TO THE MEDICAL PROFESSION AT LARGE.

By J. L. GEBHART, M. D., of Hot Springs, Ark.

Although this watering place is fast becoming a fashionable resort, up to the present time it has been exclusively resorted to by all classes, for the benefit of the curative qualities of the waters.

The number of visitors to these springs, during the last ten years, has increased at the rate of about one thousand per annum. During the year 1879 about twenty-five thousand visitors have visited the place, and about twenty thousand of that number have been invalids suffering with all forms of chronic diseases, of so obstinate a character that the patients themselves have dispaired of procuring relief at the hands of the profession at home. Not more than one-fourth, or about five thousand of these were advised by their physicians at home to try these waters as a last resort; the physicians who do send their obstinate cases here are generally members of the profession who have themselves visited these springs and made their observations on the ground, or else have had some obstinate cases under their own treatment —known the conditions of these patients both before and after their visit to these springs, and as a rule are the most eminent among their medical brethren at home. It is not claimed that the medical profession of Hot Springs are the superior of you gentlemen, or the profession at large, either in skill or attainments, but it is freely conceded that our equals, yea, our superiors in these respects are to be found in almost every part of our common country; neither is it true that there is to be found in these waters any specific for any disease whatever; *it is, however, claimed* that there are great curative agencies in these waters, that are not in the hands of the profession elsewhere, and all that the profession of Hot Springs have a right to claim, is the right to study these waters so as to use them to the best advantage,

since they are in a position to do so; it then becomes our duty to explain to the profession at large what the curative factors are, their effects on the human system, their modus operandi, and in what pathological conditions they are indicated and contra-indicated, so far as our researches shall clearly warrant, leaving all doubtful points in abeyance for their research.

To discharge this duty to the best of my ability, in response to the resolution your association did me the honor to pass at your last meeting, asking me for a paper on this important subject, it is with pleasure that I submit the following views as the result of my observations and investigations, knowing well how easy it is to be mistaken in scientific research, particularly within unexplored fields; I claim only the merit of candor and sincerity, earnestly inviting further investivation and criticism.

The most reliable chemical analysis that was ever made of these waters, was by that distinguished scientist, Professor Robert Dale Owen, in the year 1858, by the following process:

A large but definite quantity of the water of seven springs was separately treated and evaporated to dryness, the residue tested and determined by chemical reagents and gave only from eight to ten grains of solids to the gallon in the aggregate, with a considerable difference in the different springs relatively, and approximately as follows: viz.

Organic matter combined with some moisture	1.16
Silica with some Sulphate of Lime, not dissolved by water	1.40
Bi-carbonate of Lime	2.40
Bi-carbonate of Magnesia	0.50
Chloride of Potassium	0.04
Chloride of Sodium	0.218
Oxide of Iron and a little Alumina	0.133
Sulphate of Lime dissolved by water	0.320
Loss. Iodine. Bromine.	0.053
Total	6.254

This analysis it must be remembered does not even refer to any gaseous or volatile constituent, and if any active medical action is to be attributed to any or all of these constituents, it would only go to prove that the infinitesimal doses of our friends, the Homœopaths, are as yet heroic in size and require still further attenuation to become thoroughly efficient, no one in his sober sense will attribute any active medical qualities to such quantities of all of these comparatively inert constituents.

There are over fifty springs, discharging in the aggregate about five hundred thousand gallons per day, ranging in temperature from ninety to one hundred and fifty degrees of Fahrenheit's Thermometer. The water is perfectly clear and tasteless, and gives up all its solids within a few feet of its fountain head in the form of a calcareous rock called "tufa;" no one, however, as yet, has discovered a trace of silica (Si. Oz.) in this tufa. Prof. Owen supposed that it was all carried off by the water of Hot Springs creek. This, however, I found was not the case, except in a limited degree; this tufa is not formed by a precipitation of the sediment of the solids, but the deposition occurs more like the process of electrolysis, but without the decomposition of the compounds, since it occurs only in rapid currents, jets or ripples, and each constituent is deposited by itself and in succession; first the iron, next lime, then magnesia and so on, where there is no current, a sedimentary deposit of soft creamy mud is invariably formed in the bottom of the undisturbed pools; bubbles of carbonic acid are continually discharging from out of the veins of the hot water at the bottom of these pools.

In the summer and fall of 1876 I engaged in a series of investigations with the following instruments: a spectroscope of great dispersive power with the Rhumkurf induction coil, Becquerl electric apparatus, and other necessary adjuncts, a delicate universal galvanometer, chemical apparatus, etc., with the following results:

Taking the specific gravity at the various temperatures of the waters of twenty-one different springs at every ten degrees of difference, I invariably found them to be much lighter than distilled water of similar temperature, the higher the temperature the greater the difference, when the gases and volatile constituents were expelled by ebullition, the solids then being precipitated, my figures of specific gravity coincided with distilled water, and I had simply pure distilled water giving me only oxygen and hydrogen spectrum lines, with scarcely perceptible flashes of silicon lines; examining now the solids I had precipitated, I found them in all respects like the general character of the tufa deposited by electrolysis, as well as the mud in the pools, and *without a trace of silica.*

Now, this water when taken hot at the fountain head, invariably gives silicon spectrum lines. The question naturally arose why the silica is absent in the tufa, mud and water after thor-

ough ebullition, and yet silica is always found when eliminated by chemical reagents. A treble distillate seemed to me to solve the problem by comparative spectra of reversal lines and dilutings until the lines paled into flashes and finally disappeared. [Here a description of the manipulation was given in detail.] This gave me proof of an excess of hydrogen and silicon with carbon in the distillate, leaving a clear inference that the distillate contained a hydride of silicon, the carbon probably remaining free in the form of carbonic acid, which I was unable to eliminate from the water in the first place except by chemical reagents, as this iavariably resulted in showing silica, and, boiling, carried off the silicon, it was deemed impractible.

I was thus forced to the conclusion that a hydride of silicon was present in this water, which might contain one equivalent of carbon, and that this was decomposed by the presence of the reagents, liberating the silicon to combine in the nascent state with two equivalents of oxygen forming silica (Si. O^2). This was made public at the time.

Shortly before this time a discovery was made by some distinghished scientists of Europe that silicon was capable of combining with hydrogen in all the relations that carbon does, producing a Propyl, Ethyl, Heptyl and Nonyl, and shortly afterwards that one equivalent of carbon could be made to combine with the various hydrides of silicon, constituting quite a large class of silicon compounds, the therapy of which so far as I know have never yet been accurately determined, except that some of them are known to be powerfully stimulant and alterative.

This compound, whatever it may by future research prove to be, I believe to be one of the active curative factors of the waters of Hot Springs. Quite a number of other experiments were made to determine this important question, all pointing with unmistakable force to the same conclusion, the recital of which the length of this paper forbids, other important subjects requiring our attention.

I have been thus explicit, and perhaps prosy, because some of my medical brethren of Hot Springs have attempted to disparage my investigations, although not one of these has ever bestowed a moment of time to the investigation of this subject.

Some of this water gives up its heat more rapidly at first on being exposed to the atmosphere and for a considerable time

afterwards than ordinary hot water. It must not be understood however that the heat in this water is claimed to be different from the heat of ordinary hot water, and yet this water, at one hundred and fifty degrees of temperature, does not boil any sooner, under exactly the same conditions of being heated, than distilled water does at seventy degrees. Here is a difference of eighty degrees. I mean that the hot water of these springs requires its heat to be raised sixty-two degrees to reach the boiling point (212°), while the other requires one hundred and forty-two degrees to reach the same point; and yet it is as easy to raise the temperature of the latter one hundred and forty-two degrees, while the former refuses to receive more than sixty-two degrees under exactly similar circumstances.

This can be explained only in two ways, by the principles of evaporation and correlation. I hold that both processes are in in active operation. Nothing is better understood than the fact whenever a liquid changes to a vapor the vapor withdraws from the remaining liquid all its heat of vaporization, but this alone would necessarily require the presence of a sufficient quantity of volatile constituents to carry off eighty degrees of heat, while being heated up to place the two liquids upon an equality; and that is more than I would venture to claim, since some of my medical brethren deny even the existence of any volatile constituents at all.

The only remaining explanation left is by the correlation or metamorphosis of heat into some other form of energy; it is not questioned by any intelligent physician at this day, that all the operations of nature—all mutations or changes in matter, are directly traceable to correlations of energy, and as constantly as one form disappears another becomes evolved; and since we now know that light, heat, electricity, gravitation, cohesion, chemical affinity, and animal as well as vegetable vitality are all only different modes of motion, or in other words, different forms of energy constantly changing from one form into another, I have reason to believe that at least some of the heat in this water is correlated into electricity; the evidences are as follows:

Energy in any form is as indestructible as matter; its disappearance as heat cannot all be accounted for by radiation, conduction, and the vaporization of the water and volatile constituents; it must of necessity then be changed into some other form

of energy. Here the galvanometer comes to our aid and shows the presence of electricity in excess of the quantity found in ordinary hot water. It is well known that whenever a solid is taken up into solution, or given up by a solvent, electricity is generally evolved.

The galvanometer does not give the evolution of electricity before the hot water comes to the surface of the earth. This is demonstrated by the introduction of insulated conductors some distance up into the subterranean veins as compared to the reading of the instrument when connected with the same water at the surface of the earth.

From this I infer that the heat is correlated into electricity, not by chemical action, but probably by the action of the atmosphere on the water, causing it to part with its solids as well as its gaseous constituents.

The electricity evolved in this water is of such low tension that it produces no effect whatever when tested by the most delicate electroscope, however great the quantity; and yet the galvanometer responds quite readily.

The electricity most singularly disappears when a bather, whose functional action is stimulated into a state of exhalted activity, is immersed in an insulated bathtub, as demostrated by the comparative use of the meter with the bather in and out of it.

This I can explain only by recognizing the body of the bather as receiving either the heat of the water and correlating it into functional activity, (which is simply a manifestation of vital energy in one form) or else that the body receives electricity and correlates it into vital energy; I incline to the former theory; however this may be,such seems to be the effect on the bather, and I regard this *correlation of heat into vitality* as the greatest curative factor in the waters of Hot Springs.

The immediate effect of a bath of 98° temperature of this water, as compared to a bath of ordinary water of the same temperature is that this is very much more stimulant, exhilarating and eliminant, the heat of the body is raised from three to four degrees, the action of the heart is augmented both in force and frequency, often increasing the frequency twenty-five beats in a minute, all the secretory organs becoming roused into great activity—a feeling of pleasure and gladness—a modification of

pain and weariness, and a relaxation of muscular and ligamentary contraction.

The effects of a continued use of these baths are: remarkably great alterative action, correcting retrograde metamorphosis; equalizing and moderating nervous excitability; increased action of the entire absorbent system; increased disintegration of tissue; great increase of assimilation and reparation; unparalleled activity of all the excretory organs, eliminating mineral blood poisons rapidly, such as lead, mercury and iodine, so rapidly that compounds of the two last named are here frequently prescribed and are often taken in heroic doses with almost perfect impunity; eliminating also all effects and poisonous products of the disintegration of tissue by the kidneys and skin, and a material abatement of the morbid craving for alcohol and tobacco in those who have acquired the habit of the excessive use of these stimulants; all of these therapeutic properties, more especially the alterative, are counteracted by the use of opium, tobacco and alcohol, the latter are forbidden to patients; all these effects, as with nearly all other medical agents, are not strictly constant; even where these waters seem to be clearly indicated, there is a small percentage of failures even at Hot Springs. In my opinion most of these failures are not due to a lack of virtues in these waters so much as to their mismanagement and indiscretions on the part of the patients themselves.

The pathological conditions in which these waters are indicated may be gathered and interpreted from the above given effects and therapeutical properties by any intelligent physician without a special enumeration of those morbid conditions in which these waters have acquired their world-wide reputation, with however this addition, that every character of pain that is not connected with any acute reaction is almost constantly and permanently but gradually relieved by their judicious administration.

One other effect I must refer to before I close this subject, which is quite unique in medical experience; almost all senile infirmities seem to be postponed for a year or two. It is not unusual to see octogenarians put on juvenile airs; this effect I attribute to correlation of heat into functional activity. To this same correlation I attribute also the unparalleled curative virtues of these waters in all forms of uterine diseases and their sequences.

Where doubts arise from peculiar or unusual conditions some reputable physician of Hot Springs should be consulted by mail through the attending physician at home, giving all details as far as possible.

The pathological conditions in which these waters are contra indicated are: Whenever the pulse is materially accelerated by the disease; an exalted action of the heart and arteries; where there is a tendency to active inflammation or any form of acute disease; where the action of the heart is in any way interfered with, either by structural change or the presence of liquid in the pericardium; where there is a marked increase of the temperature of the body; in hectic fever; in cancer, or any form of epithelioma; where there is a tendency to wasting hemorrhages, and with pregnant females.

The medical profession of Hot Springs do not desire, nor are they entitled to your patients when it is in your power to relieve them at home, but whenever you have not the curative factors at hand after thorough trial, then it becomes your duty to your patients as well as to yourselves, to advise a trial of the efficacy of these waters in all those cases in which their use is indicated. It is furthermore your duty to see that they get into the hands of a reputable physician for advice and treatment, and to escape those medical frauds who buy their patients openly from any of our hotels, and from paid ropers and steerers at a stipulated price per head, not for treatment and relief, but for downright robbery and malpractice.

It is unfortunately true that the efficient curative agents as well as the therapy of these waters are as mysterious as the source of the heat and of the waters themselves. It may also prove true in the future that where their use is now apparently contra-indicated they may prove to be equally efficient as in conditions wherein experience has already proved their efficacy. Careful and progressive experimentation should continue. Their use in varied limitations and modifications should be resorted to. Scientific experts should enter the field here for the sake of science and humanity. Government should lend its aid with unrestricted liberality. There should be here a great national sanitarium. The topographical possibilities for a beautiful city are infinite, and nature with open hand has laid broad the material foundations for the exhibition of the learning and philanthopy of the greatest and most liberal nation known to history.

SUGGESTIONS ON THE MANAGEMENT OF NATURAL LABOR. By J. W. SINGLETON, M. D., of Paducah, Ky.

As chairman of your Obstetric Section I have the honor to make the following report: I have discovered but little advancement in midwifery practice during the past year. In availing myself of all accessible means of obtaining new ideas and original suggestions on this important part of our professional duty, I have diligently examined many of our leading medical journals for the period mentioned, and particularly those especially devoted to obstetric science. Nevertheless, since our Society met in the beautiful capital of Illinois, woman, the "better part of our creation," has gone on child-bearing pretty much "after the old-fashioned way," as frequently without as with the help of the doctor; often without a midwife, and occasionally without the assistance of even a good nurse. It is therefore evident that notwithstanding the "pains and penalties" of child-birth and of—

"Moving accidents by flood and field,"

the population of America, as elsewhere, is decidedly on the increase; and that the world from present "prospects" will soon have people enough to take care of it, by meeting the highest demands of this progressive age. In our own country, as far as I can learn, during the past twelve months the work of human parturition has gone bravely and successfully on. We have abundant reasons to congratulate the child-bearing women of Indiana, Illinois and Kentucky that they have, as a rule, been remarkably exempt from puerperal diseases of every kind. We are devoutly thankful to the "author of every good and perfect gift," that during the past year we have had no serious epidemic among those whose God-appointed duty it is to "increase, multiply and replenish" this great republic of ours With joyful emotion, let us join in songs of thanksgiving that the labors and fruits of human birth-hood are swelling onward to the full flood-tide of successful accomplishment. And so may they ever continue until this favored land of ours shall want for neither care, culture, nor the performance of any duty? Let us

unite our hearts and voices in blessings upon the mothers of our beloved land, and with kisses for the babies, thank Heaven that the labors of regeneration still go on!

It is not my purpose on this occasion to attempt the discussion of obstetrical questions which men profound and erudite in medical science have long since settled. Nor shall I consider the anatomy or the physiology of a process which is about as well understood as any other department of medical knowledge. The discussion of the mysterious laws of "the unseen universe," by which the ovum is fecundated and carried to its maturity, need form no part of this paper. Suffice it for me at present to discuss practical matters in midwifery wherein all members of our profession are not of one mind. I therefore humbly beg permission to offer a few

SUGGESTIONS ON THE MANAGEMENT OF NATURAL LABOR,

subject of course, to the kind and candid consideration of this honorable body. I think, that in the conduct of purely uncomplicated natural labor, we have made but very slight improvement upon the practice of former times. My opinion is, that nearly all of the apparent advancement in the generation and production of children has been accomplished more by the improved intelligence and physiological education of women, than by the efforts of "scientific obstetrics," so-called. The great questions with us now are, how we shall still further promote the safety, increase the comfort of parturient females, and shield them from the dangers occasionally incident to child-birth which do occur in spite of all we can possibly do to avert them. I believe that the experience of physicians generally will sustantiate the assertion that "labor pains" are not, in themselves, as active and efficient as they were ten years ago. Nor do I believe that "natural labor" is as dangerous in its probable results and possible consequences as it was twenty years since. Admitting the truth of these opinions, what are the results which have followed this (which I venture to call), general uterine inertia? Are not the wombs of parturient women now more completely under the control and management of the physician or the midwife than ever before known in your experience or observation? But yet this gradual change which has taken place in the physiological functions of pregnant uteri, not generally recognized or acknowledged, has uselessly caused child-

bearing women to fear the midwife and the doctor worse than child-birth. It has given rise to a practice of obstetrics which, we fear, is being too often abused. It has induced prudent, cautious and conservative practitioners to lose confidence in their own powers, by contradicting instrumentally the deductions from their successful experience in the past. It has unsettled to a marked degree the ancient traditions of obstetric science. It has made many of the older members of our profession feel that they have been "*scientifically*" ignorant all their lives, notwithstanding they have had twenty, thirty and even forty years of obstetrical experience, with results entirely satisfactory to themselves and their clients. There is a wide difference of opinion and practice between what might be called, with propriety, "the new school" and "the old school" in the science and in the arts of obstetrics. Deeming the votaries of both schools honest and conscientious in what they do and teach, let us see if we cannot say something towards reconciling or modifying, this antagonism on the safe and healthful plan of conservatism in the happy medium between the two extremes of "*do-nothing-ism*" on the one hand and "*do-too-much-ism*" on the other. In the vast majority of cases of pregnancy now-a-days, and especially in what is called "good society," hereditary influences have a great deal to do with insufficient and inert uterine pains in labor. So many ways and means are constantly used to prevent conception and produce abortion by multitudes of "*ladies*" of the present day, that there is a general wide-spread *uterine habit* antagonistic to a normal pregnancy and birth, which, at the finale, causes nature to call aloud for help of some kind in the supreme hour of distress. Thus while labor pains are slower and for the time being less efficient than formerly, as the effect of hereditary causes handed down from mother to daughter, the obstetrician becomes more and more necessary in parturition. He often makes himself the soverign arbiter of the maternal destiny and the chief factor in the salvation of both mother and child. He is thus made master of the situation in necessities which were produced by bad education and a defective social morality. We trust that under the elevated teachings of a correct hygiene the present and future mothers may learn how to conduct themselves safely and harmlessly through the consequences and dangers of pregnancy according to the laws of nature. We hope that they may soon forget all of the evil lessons

they have too aptly learned in "the school of convenience" for the sake of their innocent and helpless offspring if not for their own good. We pray that the mental and moral power of our women may be improved and chastened by the enlightened surroundings of the age in which we live; that their very natures may be strengthened and purified with the sacred longings and holy anticipations of a sweet, tender, and loving maternity, for on the renewal of this God-given sentiment of our mothers in the hearts of the girls of the rising generation, rests our future hope for a vigorous and healthful population not only in this country but throughout the world!

I fully agree with "*the do-every-thing*" class of obstetricians that "*do-nothingism*" is dangerous, as a rule, but at the same time endorse the position of the negative practitioners, that what is understood to be "meddlesome midwifery," instrumentally considered, is a little worse than the practice of any other school known to medical science. I cherish no confidence in or love for the negative practice of obstetrics. From the time we discover the sure approach of the maternal crisis until the accomplishment of the *decisive* act, there is an instinctive demand upon us to do something to comfort and relieve. We must do something to meet the trying exigencies of the hour. Our very presence must be felt as a power for good in the lying-in chamber,—a living and a present benefaction! If it is only to administer a cup of cold water to the pain-racked sufferer in the name of our merciful calling, or to fan the throbbing temples ribbed and rugged with distended and distorted blood vessels,—or to lift the aching head from the disarranged pillow, and if needs be, nurse it with paternal tenderness in our arms,—we must do something to make our ministrations a boon and a priceless blessing to the object of our tender care! We must make *our will* her will for the time being; our moral power her moral power, thus strengthening each nerve and fibre of her complex personality through that strong, electrical chain of soul-inspiring, active, watchful and efficient sympathy, which will nearly always comfort and encourage a parturient woman through the perils of a difficult labor, to a happy result.

THE HAND THE SAFEST OBSTETRICAL INSTRUMENT.

There seems to be a God-like power in the educated human hand when it is engaged in ministering to a woman in labor. I believe it was the late Prof. Horner who said, "that the human

hand guided by the human will, is the most perfect instrument man ever saw or ever will see." Its gentle, electric touch, full of mental nervehood, glowing with soul-power, and guided by exquisite feeling; its fingers thrilling with keen vitality, instantly and like magic, puts you in perfect sympathy with the powers and person of your patient. She draws comfort and courage from your firm and steady grasp, and under its supporting and encouraging influence she becomes more than herself, because it completes the grand electrical chain of animal and psychological power. We all have known and felt "the magnetism of the hand" in the ordinary meetings and greetings of every-day life. How often have we realized that "next to the head, the hand is the seat of the soul." I am persuaded that when God made man out of the dust of the earth, He held him up with one hand while He built him up with the other. So the intelligent and sympathetic obstetrical hand is of the utmost importance to womankind in the sore hour of her travail. The firm, gentle, plastic hand, with an eye and a heart in every finger, as the junior brother and faithful instrument of the steady brain, is worth all the instruments that have ever been invented from the unnatural birth of Julius Cæsar down to the present day. The educated, thinking hand guided by an almost independent and instinctive intelligence; seems self-inspired in its offices of detecting and removing difficulties and dangers that our eyes can never behold, and with a celerity and spontaneity that appear to be guided by divine direction. The medical man who knows how to use his hand in obstetrical offices, and who has the faculty of infusing his mental and spiritual strength into *the will* of a woman in labor, makes himself a most important factor in the divine ordinance of child-birth, and rarely ever needs the help of machinery to drag a human being into the light of this world.

THE PRE-NATAL ABDOMINAL BANDAGE.

Practically speaking, when there is no marked disproportion between the diameter of the pelvis and the presenting part, in ordinary labor, there ought seldom to be a tedious or protracted confinement, if we properly avail ourselves of the opportunities and facilities offered us, by simple means, to innocently and harmlessly assist the efforts of normal, physiological processes in accomplishing the crowning act. Much of the anxious delay

and painful suffering in natural labor, arises from the neglect of the accoucheur to help the patient in the proper way, and at the right time. When the os is properly dilated, the lower part of the rectum sufficiently emptied, the bladder kept steadily evacuated, but the labor progressing too slowly, there is nothing, in my opinion, that gives more solid "aid and comfort" to the woman, than a smoothly applied and equally adjusted pre-natal bandage, from the ensiform cartilage of the sternum to the symphisis pubes. Let this bandage be arranged by yourself, or by some competent nurse, in your presence, and gently tightened, without giving pain, as the labor proceeds to its final accomplishment; so as to give support and confidence to the mother and no unnecessary suffering, and I am well satisfied, from long experience, that fully one-half of the occasional delay and agony incident to child-birth will be happily prevented, and the patient safely conducted past many of the possible accidents of parturition. The bandage before delivery acts not only as a benign and positive help in completing the labor, but as a means of assurance, it exerts a marked influence upon the patient by inducing her to help herself in her trying emergency. She feels that she has something to lean upon, while she exerts the most vigorous power of her will and body to promote expulsion. She feels herself girded about with a harmless embrace, which gives her hope and courage to think, that in the end, and very soon, all will be well. Her bowels are well supported and her womb kept in proper position. The tendency to anteflexion is happily controlled. The womb, by the means suggested, is not permitted to surge from one side to the other under the action of excentric or one-sided contractile pain. The contents of the organ are put on the proper plane for safe exit, the posterior *tilting* of the presenting part is nearly always, slowly but surely, counteracted by the pre-natal support, and the os placed and kept in the proper axis for an early birth. As the labor steadily progresses, follow gently yet firmly with the bandage, skillfully holding every inch of ground you gain. When the labor is finished, the bandage is already in its place to secure the prompt and speedy expulsion of the placenta, force out the clots, and insure prompt contraction of the uterus.

I beg the privilege of saying, that during an obstetrical practice of twenty-five years, I have never had a serious case of post-partum hemorrhage, and that as I believe, in consequence of

always using the pre-natal bandage, when it was at all practicable to do so. If my professional brethren, who have not, will adopt this simple prophylactic, and always give a little ergot, when its use is not contra-indicated, just before delivery, such will be the result of their experience in ninety-nine cases out of a hundred. I speak with perfect confidence and earnestness in this matter, for I know what I assert to be true. Besides, the abdominal bandage, used in the manner proposed, goes far towards preventing rupture of the womb, an accident that occasionally happens, in spite of our best directed efforts to prevent it. I repeat, that the bandage insures, almost without exception, not only the thorough evacuation of the uterus, for the time being, by helping to detach the after-birth at once, and speedily, but guards against the formation of clots, materially mitigates the severity of "after-pains," cleans out the whole machinery of the generative organs, and puts the glad mother on the joyful way to a speedy and satisfactory recovery. I have found that in many comparatively tedious and difficult cases of natural labor, where the widespread elements of hereditary uterine inertia presented itself, that when it was necessary to give support to the action of the womb, and when the hand of the obstetrician was incompetent to the task of keeping up irritation and contraction, the abdominal bandage "acted like a charm" in assisting the patient through her troubles, even when I had grave apprehensions that a resort to instrumental delivery would eventually be unavoidably necessary. I repeat, that I have had so many apparently dangerous, yet in the end satisfactory deliveries, and without harm to either mother or child, in consequence of always using the bandage in question after the completion of the first stage of labor, that I again recommend this pre-natal support to my brother practitioners, in the full assurance that the more they use it the better they will like it.

ERGOT A GREAT BLESSING.

I beg to remark, in this connection, that as a prompt and faithful auxiliary to the bandage just considered, there is nothing in the whole materia medica comparable to good, fresh ergot, appropriately and prudently administered—where it is proper to give this almost indispensable labor-producing remedy. When the article in question is indicated I do not propose to do without it, if it can be obtained for love or money. We should have

some reliable preparation of ergot always on hand, when attending women in child-birth, for I am well satisfied that more deaths have occurred in parturition, in consequence of its want, than by its use or so-called "abuse."

I know nothing, practically or by observation, of the disease toxicologically called "ergotism." It is to me a complaint of the medical imagination. I do not believe that there is an honest and conscientious practitioner in this Society, or anywhere else, who believes that he ever did any harm with ergot, prudently administered, or that he has ever killed a child or injured a mother with it. I do not believe that the uterus has ever been ruptured or the perineum torn in consequence of its use, or that any positive harm ever followed the judicious administration of this drug, that would not have occurred had the article never have been given at all. Excessive tonic contraction, with no progress in the labor, can be as easily and readily controlled by chloral hydrate in small doses, or by a few whiffs of chloroform, as thirst can be slaked by water, or animal temperature reduced by the use of ice. Reasoning, therefore, from the results of the intelligent use and the vaunted non-use of ergot, we hazard the opinion, however herterodox it may be considered by many of our craft, than in striking an honest balance between the ergot practice and no ergot practice, if the whole truth in the premises could be known, the superiority of the ergot theory would have living witnesses by thousands. As a matter of course, we can give ergot improperly, and no doubt this is often done; but at the same time, we seriously fear that instruments are too often used unnecessarily, and sometimes almost wantonly, in delivering poor woman of her precious living burdens, as a matter of convenience to the doctor.

We can give quinine, calomel, rhubarb and aloes, when a little cold water and beef tea are alone demanded. We can poison or nauseate a man or a woman with almost anything, from arsenic to the simplest food; for the legitimate use of an article is one thing and the senseless abuse of it is another. The administration of ergot under questionable circumstances, may give rise to certain inconvenient and unpleasant symptoms for the time being, but they spring from the physiological effects of the remedy, which under other circumstances, would appear harmlessly benign, causing no alarm or solicitude whatever. It is foolish to say that the action of this medicine cannot be con-

trolled and directed in its operations, when its therapeutic effects are doing no good. In such contingencies we have in chloral hydrate and chloroform two most effectual throttle-valves to safely engineer the womb over any danger that may threaten our gentle craft in consequence of too much ergot in the human boiler. It is manifestly as proper to say that our patient is poisoned with quinine, under the peculiar sensations produced in the head by that alkaloid, as it is to assert that a woman is poisoned with ergot, during persistent ergotic pains. In one case your patient feels the effect of a medicine which nature is able to regulate and modify, as best suits her sovereign purpose, and in the other you can control and direct it to beneficial results, according to the laws of nature and the teachings of rational science.

In the vast majority of cases, the physiological response to the administration of your quinia and ergot, is in accordance with the demands of the occasion, and without harm to your patient, because in obeying the calls of nature for aid and assistance, you have given those remedies which meet the physical necessities of the situation. Ergot is as harmless as quinine, when given with prudence and discrimination. I believe that ergot, next to chloroform, is the greatest blessing ever bestowed upon child-bearing women. I could as well do without my left hand in the management of a tedious case of natural labor, as without ergot to help my patient through her hour of trial!

I prefer to let critics state their arguments on the other side of this question; but, we may bear in mind that nearly all of the respectable opinions expressed against the use of ergot were uttered by good men when its true therapeutic value was not thoroughly understood; when, indeed, it was regarded by scientific physicians as a poison, and not as a safe physiological means of expediting labor. Ergot has attained its high place in the medical world "through great tribulation" and slander. I do not believe that it ever did any harm to either mother or child when prudently and properly given, with due regard to the requisite proportions between the diameter of the pelvis and the presenting part.

THE DISTENSION OF THE PERINEUM.

As delays are sometimes dangerous in the second stage of labor, during the temporary inertia of the womb at the time,

and as the injury done to the mother or the child is principally inflicted at that period in confinement, I would excite, and if possible, sustain expulsive contraction with ergot and the prenatal bandage, as steadily as is practicable and safe, and take measures to distend the perineum in advance, in order that this part may not be surprised by the final throes into laceration or rupture. By distending the perineum before the presenting part is pressing upon it interiorly, and by deftly drawing upwards and forwards the bagging tissues of the vagina, we prepare the way for a comparatively easy and safe delivery, without the use of forceps, with no harm to the child and with great comfort to the mother.

When you talk of "supporting the perineum" in the second stage of labor, you talk nonsense! The power that you exert with the pressure of your hand to the parts involved militates against the accomplishment of the labor itself, retards its progress, and favors the occurrence of the possible accidents and complications which we always try to prevent. You cannot apply this so-called "support," as taught in the books, to any considerable extent, without doing harm either to the womb, the mother, or the fœtus. As well might you try, innocently, to regulate the strength and fury of a storm as to endeavor, harmlessly, to govern and influence the last agonizing throes that force the snuffling infant into the light of day. The phenomena of labor are wonderfully mysterious, and almost incomprehensible. They have their laws, which we can modify at times, and direct to a certain extent, into the path that leads to happy consequences, but we can never wholly control them, for they are the laws of nature and the God principle infused into animated existence! We can only, in this instance, "clear the track" and open the way for the sublime culmination of woman's highest duty to mankind.

It is my observation that the perineum of woman in childbirth is rarely, if ever, ruptured or torn, except by too sudden delivery or the use of the forceps. When the parts have plenty of time to prepare themselves for the final ordeal, with or without the assistance of the physician or the midwife, and the labor proceeds slowly and surely to the end, serious injury rarely ever happens to the soft parts of the pelvic floor, though we sometimes have a little excoriation as the result of unavoidable friction.

By properly distending the perineum in advance, you not only prevent probable wounding in the last act, but in a head presentation, you keep the pressure off the brain of the child, relieve the fundus of the wound of inordinate strain, and promote the efficiency of the expulsive pains, without danger to the mother or her coming offspring. Then, we think that with the use of the pre-natal bandage, attention to the normal position of the presenting part, the judicious administration of ergot, and the previous distension of the perineum, we shall have use for obstetric forceps, once in about 500 cases of midwifery, even though at times we may feel almost compelled to resort to instruments in self-defence, if not for the earthly salvation of our patients. And in addition always use plenty of good and fresh hog's lard. "Oiled wheels run smoothly." God bless the man or woman who first suggested grease in obstetric practice! Patience, perseverance and grease will help a fellow out of many a painful difficulty in the lying-in-chamber. Depend upon it, there is nothing like patient pluck and prudent perseverance in midwifery! These two guiding principles are worth all the instrumentally "meddlesome midwifery" in Christendom. They are full of gentleness, mercy and courage in defence of her who cannot defend herself. There is no soulless steel in these tender and watchful vigils. There are no instrumental arguments in this God-like work. They are conservative, and conservatism is the essential principle of all permanent success in the practice of medicine!

THE ABUSE OF INSTRUMENTS.

If we mistake not, the medical schools of America, generally, and likewise of Europe, are now advocating a resort to the use of obstetrical forceps more than formerly, and often to the exclusion of other time-honored means of conservatively consummating child birth. The *forcepathist* of to-day, "armed and equipped" as "the law" of modern schoolmen, "directs," with obstetrical forceps, a powerful weapon for evil, when improperly used, launches forth upon his brave and bloody career, to prey upon the wombs of womankind, thoughtless of the pain and injury he inflicts, and regardless of the gynæcological miseries that follow in his train! Nor does this unfortunate *forcep mania* influence the practice of the younger practitioners alone. It has become unhappily "*fashionable*" in certain quarters. Its baleful effects have, to a certain extent, "turned the heads" of

medical men venerable in the service who have, until the last few years, practiced conservative midwifery most successfully and satisfactorily to all concerned. It cannot be truthfully denied that nearly one-half of the "scientific" medical world have been "converted" to the idea of a more frequent use of warm steel in delivering pregnant women of their precious burdens, in violation of Nature's laws and in vindication of "science," falsely so called. We must find good and substantial reasons for the radical change which has taken place in this department of our professional duty, or the "New Departure" cannot sustain itself. We must know why it is that hundreds and thousands of parturient women are not permitted to have children "in the old-fashioned way" and manner which an All-Wise Creator has appointed, and why it is that millions upon millions of this busy world of ours did not perish "in the *bornin*" within the rude embrace of ergotism nor in the crushing grapple of obstetrical forceps? Why it was that Dr. E. M. Power, of St. Louis, Missouri, delivered successfully two thousand women without resort to instruments, and why Dr. Collins, of the Dublin Lying-In Hospital, under the most unfavorable circumstances of poverty, disease, deformity and wretchedness, delivered 16,414 women with success, using the great baby-crusher but once in 608 cases? And why is it that in our country, in the cities, towns, and amid rural populations, physicians and midwives have been "grannying" successfully for ten, twenty, thirty and forty years, all classes of people, "without regard to color or previous condition," without ever being compelled to resort to instrumental delivery.

These facts, truthfully stated, are worthy of serious thought. We cannot afford to despise the lights of practical experience, and especially when they lead us into the paths of safety and security. Judging from a rational and conservative standpoint, we conclude that there must be a mistake in the teachings of modern obstetrics. There is, evidently, great danger that the use of mechanical means to expedite child-birth will be abused. I am strongly of opinion that misapprehension of the influence of the hereditary uterine inertia, now generally prevalent, will account for the difficulty under which we sometimes labor, and that the use of the forceps will very seldom become necessary, if we realize this marked pathological change which has become *fixed*, as it were, in the wombs of many women of the present

day. There is certainly a more general "call for help" in the parturient office than ever known before. Let us, therefore, extend that help in the most innocent and harmless manner possible, by well directed, well timed, judicious physical and moral support; by the gentlest excitation of functional processes; by cleaning the vaginal track as much as practicable, and opening the way for the triumphant advent of promised "little ones" into happy households.

I would not be understood as saying that obstetrical instruments should never be used. Far from it. Unfortunately there occur cases and occasions in which their use is indispensable, at whatever risk they *have* to be employed. But I am well satisfied that the present epidemic of *forcep mania* promises but little safety and happiness to the babes and mothers of the future generations of mankind, if something is not done to circumscribe its evils and keep it within due bounds.

While it may be said, with truth, that the science and the arts of midwifery have not wholly escaped the salutary effects of the general blessings conferred by progressive medicine, I do contend that the unnecessary and heroically scientific use of the forceps in child-birth is opposed to progressive improvement in obstetrics. It is even more. It is emphatically instrumental retrogression, of which many of us will eventually feel ashamed.

A few remarks in regard to what I consider

CONSERVATIVE MIDWIFERY

will help to bring this report to a close, however imperfectly and unsatisfactorily my duty will have been discharged, both to this society and to myself.

I am indebted to the kindness of my distinguished friend Dr. R. W. Dunlap, of Danville, in our State, the President of the Kentucky State Medical Society, for the following most excellent summary on the use and abuse of the obstetric forceps. The doctrines embraced therein are so truly conservative, and in such direct opposition to forcep mania, that I heartily indorse them, and cordially commend them to the conscientious student of the obstetric art. Says he: "Dr. Rob't Barnes has presented these matters before the profession in an admirably learned and scientific paper 'On the use of forceps and its alternatives in lingering labor,' delivered at the debate on the subject in the Obstetrical Society in London, May 7, 1879. "Labor is a physiological pro-

cess, and any interference, either manual or instrumental, must of necessity be left to the direction of the physician in charge. That there are cases in which the skill of the obstetrician is required, and it would be culpable in him if he persistently refuses to interfere. The old adage is that 'meddlesome midwifery is bad.' It is equally true that delay and neglect may result in detriment both to the mother and the child; the avoidance of either extreme would be the safe ground to occupy. There can be no better guide than the observation and experience of leading men in this branch of our science. We will let them speak for themselves. Collins gives the conditions for using the forceps as follows:

"Generally speaking, so long as the pulse remains good, the bowels and bladder act well, the soft parts remain free from severe pressure, and the uterine action continues to be so as to cause the presenting part to descend ever so slowly, the patient having no pain in the abdomen on pressure or local distress, the child at the time being alive, I am satisfied no attempt should be made to deliver with instruments, and *he who does so wantonly exposes both mother and child to danger. The necessity alone of freeing our patient from impending danger should induce us to resort to instruments.*"

"The younger Ramsbotham says: "If the pains are subsiding gradually, or have disappeared, strength failing, spirits sinking, countenance anxious, pulse 120 or more to the minute, tongue coated brown or ashy, two or three rigors, tenderness on pressing the abdomen, green discharge and swelling of vagina, head locked, vomiting, humid breathing, delirium or coldness of the extremities, *then delivery must of necessity be effected*, and we should be acting most injudiciously to allow the case to proceed until the four last named symptoms appear without relief being offered. But so long as the uterus is contracting with energy, the strength and spirits good, the countenance natural and cheerful, pulse under 100, tongue and mouth moist and clean, no vomiting or rigors, or heat, swelling, or tenderness of parts; *so long as the head retreats in the absence and advances in the presence of a pain*, provided there be any progress in the labor, from hour to hour—so long there can be no necessity for instrumental aid."

Dr. George Johnston said in 1871, as quoted by Dr. Dunlap: "We have come to the conclusion, and our established rule is, that so long as nature is able to effect its purpose without prejudice to

the constitution of the patient, danger to the soft parts, or the life of the child, we are in duty bound to allow the course of nature to proceed. But as soon as we find the natural efforts are beginning to fail, and after having tried the milder means for relaxing the parts or stimulating the uterus to increased action, and the desired effects not being produced, we consider we are justified in adopting prompter measures, and by our timely assistance relieve the sufferer from distress and danger, and her offspring from imminent death." So much from Dr. Dunlap.

In concluding this humble paper, you will pardon me if I do not indorse the practice of this, in many respects, too fast medical age, which prompts an obstetrician to deliver innocent babies to the music of clanging steel, and too often with consequences which might be avoided by prudent and Argus-eyed waiting, and by the exercise of an intelligent and courageous patience. As ministers of mercy in the most trying hour of woman's gentle life, looking to God to help her in all we do for her relief, we should have a care lest in the too frequent use of mechanical means to effect delivery we prey with scientific voracity, uselessly and harmfully, upon the wombs of womankind to our present sorrow and perpetual shame.

Let us ever stand ready with pure hearts, devoted lives and willing hands, skilled in the use of every agency our beloved science has devised, or a wise experience approved, to promote the comfort and secure the safety of suffering woman in her truest, bravest and most sacred duty to the world.

And since even then, we cannot prove the sovereign abiters of her temporal destiny, we can, at least, help her to triumph over some of the enemies of the puerperal hour. This succor, as the positive friends of the distressed, and chosen guardians of the temple of life, we should always be prepared to furnish and promptly render, at all times and under all circumstances.

Safe confinement of child-bearing women, proper care of the maternal fruit, and the conservation of the health of both mother and child, being the objective points of all our efforts, let us omit no means consistent with sound reason and common sense, however simple it may appear, if at all suited to the desired end; ever keeping in mind the great truth, that in a vast majority of cases, nature is equal to the emergencies of sound and healthy parturition; or at least, she can often be induced to respond to the

demands of the occasion, by a little timely, harmless and judicious coöperation on our part.

Conception, gestation and childbirth, are inestimable blessings to good and healthful women, if the sacred functions of her sex escape the defilement of the base and the impure. Woman conceives according to that wonderful law enstamped upon the life-spring of her being as she came forth from the hands of her Creator in all the loveliness of unconscious beauty and artless grace. Through long and weary months, she nurses, next her heart, the maturing object of her hopeful expectations, with tender care and anxious solicitude. In due time she cheerfully submits to the inevitable. She goes to her couch of pain with a smile in her heart and kisses on her lips for the author of her suffering. Heaven and gentle Spirits watch over! The child is born. Born in the midst of joy and tears! Born as millions have been born before, in full accord with natural processes, which were developed into life and power when woman ate the forbidden fruit and "men became as gods, knowing good and evil." Born as myriads are yet to be born, to the end of time, and until the afternoon of that day upon which the last man and women shall disappear from the face of all the earth; when our bandages, ergot and instruments shall be forever laid aside, and the agonies of childbirth give place to the production of the race of "spiritual bodies," the immortal children of the "new birth" in a new world, without pain, without death and without sorrow.

Conception, gestation and birthhood, are the sublimest manifestations of the God-power among men! Let no man uselessly or profanely invade the divine arcana of man's reproduction! The birth of a living child is the general climax of creative wisdom! Why may not the gods and men mingle their voices in joyful thanksgiving over the entrance of an immortal being upon the shores of time?

Let us, then, as conscientious obstetricians faithfully watch at the portals of human existence, and tenderly welcome each trembling voyageur as he is launched forth upon the sea of human life! Let our pride in and our love and affection for our high profession, manifest their best fruits in our tender and loving regard for our fellow men, and especially for the mothers and babies "whom we have always with us." And above all, let us never forget, that in the faithful performance of the reponsible and delicate duties of obstetric practice, there is scarcely a sug-

gestion from the poorest and most illiterate midwife that may not have some practical good in it, and that there is no idea however new or simple concerning the management of labor and the treatment of parturient women, that may not, at some time, in our professional experience minister to the comfort, relief or safety of our patients in the lying-in chamber.

Finally, gentlemen, let us be watchful over those confided to our care. Let us keep our hearts pure and strong to do our whole duty in our ministrations of mercy; our brain steady, our hands unpolluted, soft, sympathetic and intelligent! Let us "watch, therefore, and be diligent," for in such an hour as he thinks not some one of us may become the honored savior of some good woman's life, and the medical father of one who will eventually lead his fellow men through paths of knowledge and virtue to a glorious deliverance from ignorance and sin, who with heart and mind consecrated to the good of the human race, will scatter the blessings of his beneficent life-work among the sons and daughters of men!

ST. LOUIS MEDICAL SOCIETY.

Saturday, May 1st, 1880.

Sunstroke.

Dr. Johnston, refering to Dr. Hurt's paper: I think it requires some other conditions besides the heat developed by the solar rays to produce sunstroke. The people in North Africa, where the thermometer runs up to 125° are not much subject to sunstroke. It may be owing to the fact that the inhabitants retire in the shade from 10 A. M. to 4 in the afternoon.

When I first came to this city, some 25 years ago, it was a heated summer and terribly severe, both upon men and animals, and the omnibus carrying sunstruck people was a common sight. In seasons in which sunstroke is frequent, people suffer from want of oxygenation of the blood, and it is that influence which induces this phenomena.

Cochran reports cases in which the men fell under the intense heat as if they were struck by lightning. I presume the excessive heat striking the brain and passing down the spinal cord produced paralysis. The brains were found deficient in blood. So that you can have sunstroke from the direct rays of the sun, acting upon the brain and nervous system, when men fall as if they were shot. That form of sunstroke is not very prevalent in this city. Now whether this disease depends upon a deficiency of oxygen in the atmosphere, and the tissues of the system are not properly oxydized, and hence there is an excess of carbonic acid in the blood, would induce this phenomenon, is not demonstrated, but there is a strong presumption that such may be the case, combined with what we call malaria.

Dr. Post—In accordance with Dr. Hurts views, Flint in his "Practice" speaks of treatment by direct bleeding in his cases, and gave very strong evidence of its being successful. There was a point in Dr. Hurt's paper of sunstroke being due to renal poisoning. That is a point upon which I would like to hear something from other members of the society.

Dr. Hughes—I have seen no occasion since summer before last to change the view then expressed that sunstroke in its ordinary phases is primarily a failure or exhaustion of the

sweat nerves and glands; that this is the primary and characteristic phenomenon of sunstroke—with more or less general nervous exhaustion there is primarily a failure of the sweat nerve centres—that preside over the sweat secretion. I long ago gave up the hypothesis that it consisted solely of a deoxidization and hypercarbonization of the blood, though this condition is one of its usual results. The atmospheric conditions which cause sunstroke cause first innervation at the sweat centre and peripheral nerves that control the sweat secretion. It is not the sudden elevation of temperature nor is it the direct rays of the sun which produce the phenomena of sunstroke, but in a season when sunstroke is most prevalent it occurs rather after a prolonged and somewhat elevated temperature than after a sudden and short elevation of temperature simply. It must be sufficiently prolonged to produce a condition of innervation, and in a season when sunstrokes are most prevalent those who are fortunate as to escape being stricken down by the heat, nevertheless often feel peculiarly the depressing influences of the prevailing atmospheric conditions. It would be a long and tedious process to give all the data which have been presented to this society heretofore upon this subject. The paper of our lamented Dr. Kennard, the paper of Dr. Ford, and my own paper upon the subject, would require too long a time to give even in synopsis. I think there are no instances recorded, at least I have seen none, where the prostration of sunstroke took place without a paralysis of the function of sudation. It has always been remarked that when an individual fails to sweat well during the hot season when sunstrokes prevail, he is likely to become stricken by the heat. When he becomes so completely prostrated that he falls down unconscious or becomes delirious, it is then discovered that the cutaneous surface is dry and that the protecting influence of evaporation fails. Nature throws around a healthy man the protecting influences of evaporation; as the temperature increases about a healthy man the perspiration and evaporation with its abstraction of heat and cooling influence on the surface beneath increases; when the heat becomes so intense and prolonged as to exhaust or paralyze the sweat glands the evaporation ceases. Nature's walls of defence are thrown down and the invading heat penetrates to and impairs the vital organs within. I do not deny that you may have all the phenomena of carbonization of the blood, and that you may have the various

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The medical profession has long realized this vital imperfection in all extracts of meat, and desiderated a food for invalids which shall combine the stimulative and nutritious properties of Beef, and be at once palatable and easily digestible. THIS PREPARATION CLAIMS TO MEET THE WANT. It has been submitted to the most searching chemical analysis by the leading analysts of Great Britain, and has been adopted in their practice by the highest medical authorities, all being as one in their appreciation of its substantial merits. It is now offered to the notice of the medical faculty of this country and to the general public, with full confidence that it has but to be known to be popularly accepted.

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JOHNSTON'S FLUID BEEF is now extensively used in British and Continental Institutions, Hospitals and Asylums, and is prescribed by the medical faculty wherever it has been introduced.

Its adaptability is general to the invalid, the convalescent and the vigorous. To children it secures a strong muscular development, and for maternal nursing, imperfect mastication, athletic training, physical exhaustion, indigestion or mental overstrain, it is the perfection of known food.

DIRECTIONS FOR USE. Add a small teaspoonful to a cup of boiling water, and season to taste: or as a sandwich paste it may be used on toast, with or without butter The can may remain open for weeks without detriment to the contents.

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stases in many of these cases, in the secondary stage of all of them perhaps, but it is well known now that congestion of the brain such as was formerly supposed does not so generally exist as congestion of the lungs. When you have paralysis of the nervous system, you are prepared then for the attendant stases in the circulation, and you may have a paralysis of respiration, and of the heart. But the beginning of sunstroke is the failure of Nature to throw out her protecting wall of evaporation, and the sentry at the outposts are driven in and the defensive walls of resisting forces are broken down.

Dr. Johnston—Two years ago I read with considerable interest the theory the gentleman has originated, and for that I must give him credit. I like to see men of genius originate, strike out from the common path which the many follow. But when I bring this theory to the crucial test and analyze it, and test it by parallel cases, it falls to the ground. Every one knows that in scarlet fever the temperature rises higher than in any other fever we are subject to, and yet there is complete paralysis of the sudatory glands. Every one knows that in typhoid fever for days and weeks there is a paralysis of the sweat glands. Every one knows that in paralysis of the nervous system, the patient sweats to death. And those conditions in which there is paralysis of the sweat glands all differ very greatly from sunstroke. Can not sunstroke be explained rather by the theory that heat and electricity being the same substances under different modes, and a certain amount of heat, like a certain amount of electricity, when brought to bear on the system, will inevitably kill. It is more reasonable to go back to that theory that sunstroke is the result of the direct rays of the sun producing paralysis of the nervous system.

Dr. Hughes—It is true that in the fevers of which Dr. Johnston speaks, there is sweating where there is great debility, but sweating in fevers is exceptional, and in inflammatory rheumatism, likewise sweating accompanies a rise of temperature, is so in a number of the prostrating fevers, or rather in certain stages of them. In the case of fevers the heat acts from within. It is in the current of the blood and when the heat reaches certain nervous centers it impresses them so as to irritate and paralyze them. The first effect of peripheral heat is stimulation and increased action of the sweating process as we see in hot weather;

there may likewise be some conjoined innervating electrical conditions. It does not devolve upon me to explain how sweating may take place in fever or how the sweating function ceases in fever. It may cease in consequence of the presence of some toxic paralyzing influence impressing the sweat centers and the use of temperature may be the result of the retained heat of rapid disintegration, or the high blood heat may be sufficient in the one instance to stop the sweating process, and in still greater excess of heat to so influence the vaso-motor system as to let the watery exudation take place from the blood vessels and permit of vascular stasis and inflammatory congestion.

In the instance of sunstroke, the heat comes from without, and it is only after perspiration ceases to fortify the system against the inroad of the heat that the individual succumbs. The negro on the plantations in the South, the meshes of whose kinky wool retain a wall of moisture about his head in the heated season, known as a good prespirer and a proverbial sweat machine, is seldom if ever stricken down with heat.

When soldiers, on the march, complain that they do not sweat well, if the heat is excessive sunstrokes are imminent. I am very much obliged to Dr. Johnston for these observations, on the fact that the high temperature of fever is capable of paralyzing the system. In heat prostration, if you can only get the sweat process to take place upon the surface of the body so as to furnish evaporation from within, then you may protect your patients against the consequences of an overheated blood. But in fevers unfortunately that is not the case; the heat is already in the system, and the prostration is going on. Nevertheless, if by proper remedies—antiphlogistics as they are called, you lower temperature an active and salutary perspiration takes place.

I suppose in those exceptional fevers and stages of certain fevers, when sweating takes place and is not followed by improvement, the perspiration is only the result of reflected peripheral irritation from rapid surface disintegration and the evolution of heat there.

DR. PREWITT—I would like to ask Dr. Hughes if it is an established fact that in all cases of sunstroke there is a cessation of perspiration.

DR. HUGHES—I take it for granted that this is a universal

observation in regard to the precursory stage. It has been observed over and over again, and I have never seen it successfully denied.

Dr. Prewitt—It occurs to me that Dr. Hughes makes a distinction without a difference. Why should there be a difference in the effect of heat upon the nervous centers, whether the heat be generated from within or from without? Unless Dr. Hughes can prove that the solar ray *as such* has some specific influence in the production of sunstroke.

Dr. Hughes—I do not assert that the heat of a fever always acts directly upon the sweat centers. No one has ever atempted to establish that as a fact; but it is an undoubted fact that the presence of a high temperature in the blood will produce an impariment of the activity of the internal organs, modification of the heart's action, psychical symptoms.

Dr. Prewitt—What is it that produces a paralysis of the nervous centers, if it be not the heat?

Dr. Hughes—I have distinctly asserted that it is paralysis of precursory irritation of the nervous centers that affect irregularly the activity of all the vital organs in fever. It is probably the influence of heat upon the cells of the cerebral cortex which produces the delirium of a fever. The heat of a fever will produce paralysis of the sweat centers, or on the contrary we have every reason to believe that there is nothing more in these exceptional perspiring fevers to cause perspiration than a slight irritation of the sweat centers, thermal or toxic.

Now to my mind, the objections made by Dr. Johnston, seem a confirmation of the views which I have taken, that in a fever the heat is already within the system, has passed the outposts and gained admission into the very citadel of life, has attacked the vital organs and produced a disturbance there. It is not necessary for me to explain why it is that in some of the fevers there is no implication of the sweat glands—in others that the sweating process is arrested. But there is a vast difference between the phenomena of a sunstroke and the phenomena of a fever. The heat proceeds withinto attack the organs at once, and there is disturbance of the heart, there is the disturbed cerebrum, and as a rule the eliminating organs begin to feel the presence of the increased temperature. This comes from within. But in sunstroke, long before the delirium is manifest, when the sunstroke is approaching, you have

a failure to prespire. In all the cases which I have observed, in all of which I have read, when your patient succumbs, his perspiration is often found to have disappeared, and if you have conversed with him before he has fallen a victim, he has told you he does not sweat well, and then when you begin on your treatment, you dash a little cold water upon the top of the head and down the spinal column, by preference you produce the stimulating reactionary effect. If you are successful in your treatment you do not apply your cold water too long, and if in addition, you put ice or ether on the top of the head, and give him aqua ammonia or a little brandy for the nervous system, you are generally rewarded by successful results.

DR. MCPHEETERS—I confess, Sir, that as far as I understood Dr. Hughes theory, it seems to me as satisfactory an explanation of this phenomena of sunstroke, as any that I have heard before, or read of. I do not believe that Dr. Johnston's so-called analogous cases are analogous cases.

There is a great difference, as Dr. Hughes remarks, whether the heat is from within or from without. In the case of these high temperatures in fevers, the changes which take place in the system are so gradual, that the organs are to some extent able to adapt themselves to it, whereas in sunstroke the heat is so sudden, rapid an overpowering, that the vital forces sink beneath it. In sunstroke the person is stricken at once, whereas in these high temperatures it exists for hours and days, and the system has time to adapt itself to some extent. Now, we know there is a sweating point, there is a point of low temperature in which there is no perspiration; then it goes up too high, it is above the sweating point. An excess of heat will prevent perspiration. I do not know whether the fact is, that sunstroke takes place more frequently in a condition of atmosphere, which is unfavorable to evaporation, but we all know that we suffer more in a humid condition of the atmosphere than we do in a dry atmosphere, for the simple reason, that a dry atmosphere favors evaporation of the prespiration, and so induces a cooling of the surface of the body, and prevents the ingress of the heat, whilst a humid condition of the atmosphere has an opposite influence; and we suffer more in a rather heated atmosphere which is also humid, than in one in which the temperature is higher, but which is less humid.

Dr. Bernays—I believe that the explanation of my friend Dr. Hughes, regarding the phenomena of sunstroke, is a new one. I think also it has a great many points in its favor; it is very plausible, and catching. Since I have heard the Doctor explain it, I have adopted it, because it explains certain phenomena which I could not understand before. Sunstroke never occurs during a cool term, therefore it is caused by heat—that is a proposition which no one will deny. But exactly *how* heat induces sunstroke is quite another question. Dr. Hughes asserts that sunstroke is a paralysis of the sweat centers, and when he says it is caused by the continued action of high temperature on the human system, and then goes on to say that this high temperature can not act upon the system as long as there is perspiration, and that whenever perspiration stops the heat overpowers the system, he makes a new and very true proposition. I know of a case, recently, where a young man after dancing violently had myelitis and paresis of the lower extremities. In the same way it is possible that after the sweat glands have been caused to act continuously for four or five days that they will be paralyzed, that they can no longer secrete sweat in proper quantities; then we can understand, if the heat continues, that the temperature of the air will be communicated to the body and the phenomena of sunstroke will occur.

Dr. Adolphus Green—If a person ceases to sweat, is the cessation of sweating always to be referred to the paralysis of the perspiratory glands? May it not be accounted for by the fact that there is not sufficient water in the system to supply perspiration? May not the amount of water in the system of a person exposed to a high temperature for a long time, become finally exhausted by the continual and rapid evaporation, so that at length the sweat glands have an almost empty reservoir to supply them? We know that some men working in the sun cease to sweat, but when they drink plenty of water they begin to perspire.

Dr. Prewitt—The theory of Dr. Hughes is a very fascinating one, if it can be proven. But what evidence have we that the blood before sunstroke has not already become so heated as to produce a paralysis of the nervous centers. The question is, is the paralysis of the sweat centers the cause of sunstroke, or is it merely a phenomena connected with this state.

DR. HURT—I cannot assent to the proposition that paralysis of the sweat glands has undoubtedly been proven to be the cause of sunstroke. My idea is, that if the nerves presiding over these glands were paralyzed all the water in the blood might go out.

SARURDAY, MAY 8TH, 1880.

Instruments for Dilating the Womb.

DR. BERNAYS showed to the society some instruments for dilating the womb. He said: "These are instruments for dilating the womb, of a conical shape, and are of different sizes, beginning with very small ones and gradually getting larger, until they are sufficiently large to be used as specula. They were originally constructed by Prof. Simon, of Heidelberg, for the purpose of dilating the female urethra. About two weeks ago I was called to see a case of miscarriage. I got tired of waiting for the womb to dilate and I used these, one after another, and the miscarriage came off very satisfactorily. In the course of half an hour by means of these little instruments used in succession you can dilate the cervical canal of the womb and get your finger into it. That is a fact which I consider somewhat surprising. No one, two years ago, would have supposed such a thing could be done. This is a much more cleanly means than the sponge tent, and there is no chance of any infectious mass of pus closing around these instruments. The process is very easy, and is painless. Even without chloroform you can use these instruments and pass them into the womb without causing the patient much pain."

Hernia of the Transverse Colon.

DR. STEVENS—If there is nothing of greater importance to engage the attention of the society I desire to present a case which I think has many interesting points. I report it from notes taken at the time of my observations. I was called by Dr. John Laughton to make the dissection in an examination of the body of Police officer Holton. Besides Dr. Laughton, who had been the attending physician, there were present Dr. Thompson and Prof. Ellsworth Smith. About a year before death, and while

in the performance of his official duty, Holton received a stab, made with a pocket knife. The wound was on the left side between the 8th and 9th ribs and about four inches from the sternum. The wound healed readily and without any alarming complications. After a few days, just at the site of the wound, there appeared a soft, reducible tumor, about the size of half a hen-egg but causing no inconvenience. He returned to his occupation and continued to perform his duties for several months; in fact, till within a few days of the time of his death. The death was caused by entitis and was not attributed to the lesion mentioned. In the long interval between the time of the injury and his death the case excited considerable interest and there was a wide difference of opinion as to the nature of the tumor, the majority believing it to be a hernia of the lung; only one or two, as the sequel demonstrated, formed the correct diagnosis, viz.: A hernia of the transverse colon.

Upon opening the cavity of the chest a most remarkable displacement of thoracic and abdominal viscera was apparent. The stomach with its greater curvature upwards, was the first object in view; the left half, at least, of the transverse colon was above the plane of the diaphragm; the heart was found backward from its normal position, and the lung diminished by at least four fifths of its usual dimensions driven to the extreme upper part of the cavity, and presenting more the appearance of a spleen than of a lung. It was wholly impervious to air. The right lung seemed to have expanded and have forced the mediastinum to the left of its normal location. The diaphragm of that side seemed to have almost disappeared; only a vestige remained showing its marginal attachment. You will readily form an idea of the enormous distension that had taken place in order to admit the passage upward of nearly the whole of the stomach and a large section of the colon.

This then was the state of things as revealed by the autopsy. Our conclusions were as follows: That the knife first passed through the integument and inter-costal structures, entering the pleural cavity during the act of expiration, the lung escaped injury; the blade then passed through the diaphragm without wounding any viscus beneath; that at first, a small section of either the colon or the stomach entered the opening in the diaphragm, and then by slow advances, so slow in fact as not to be perceptible to the individual himself, and so slow that the natural

functions of the various organs implicated had ample time to conform their compensatory or other actions to the gradually changing relations. Probably it took weeks or months to work out the entire revolution.

A rather interesting fact was mentioned by the attending physician, that the patient frequently vomited during his illness. Of course this must have been performed solely by the contraction of the muscular fibers of the stomach and without the action of the diaphragm and abdominal muscles.

Reflex Causes of Disease.

DR. PORTER—I have recently met with a case which is an example of a class which I think is frequently met with, though not always understood. It is one similar to three others that I have seen, and that I reported last winter in the *N. Y. Medical Record.* This case is that of a lady somewhat advanced in years, possibly 55, who has had asthma, and has suffered during the last few years very acutely with great pain in the chest, and the paroxysms have come on very frequently. For years she has resorted every night to chloroform, and during the day smoked a number of cigarettes of stramonium and nitrate of potash. While in this city some time ago the paroxysm came on so severely that she sought the advice of a physician. He found in her nose a large polypus, which he removed. She said that after the paroxysms seemed to be better for a little while and then again returned. On examination I found the nasal pharynx crowded with small polypi of the usual kind, and when I detached them with a probe a paroxysm of asthma was immediately induced. The whole naso-pharynx was excessively sensitive. Literally she did not breathe through her nose at all; when she closed her mouth respiration was entirely obstructed. I removed 27 polypi. They were clustered together and in layers. The roots of the polypi were removed in the ordinary manner by the forceps. The mucous membrane was very much degenerated, the whole mass being soft and mucous. I injected it with a strong solution of carbolic acid, which caused the whole mass to shrivel up. I do not report this case with regard to the surgical treatment, but from the fact that so soon as she was able to breathe through her nose at all, her asthma began to disappear, and so soon as respiration was entirely restored and for the last ten days, she has not had an attack of asthma. She no longer uses chloral or the cigarettes, is gaining health and flesh, her

cheeks begin to look a little flushed and I believe I am justified in telling her she will get entirely well. In examination of the lungs I found nothing defective in the lung tissue itself. The other cases are cases similar to this. One was a case of polypi in the naso-pharynx and the symptoms were similar to the symptoms in this case. In this second case the polypi and the asthma returned; but when the polypi were entirely destroyed the asthma ceased and has not returned. The other case was that of a calculus in the left tonsil of long standing in a gentleman. Since this has been removed the asthma has decreased and to-day the patient is entirely free. I believe that the study of asthma as the result of reflex irritation is most interesting and profitable. I believe that there are many cases of asthma which can be entirely cured, and I think that those cases which cannot be cured, are not likely to be much relieved by any treatment. Reflex irritation is a powerful factor in these cases, and must be treated before anything can be accomplished.

Dr. Hughes—Upon looking over the literature of medicine, and scanning it carefully during the last few years, I have come to the conclusion that we are living under the reign of the reflexes. For it is undoubtedly a fact that medical literature to-day, teems with clinical illustrations of the potency of reflex causes of disease in remoter parts of the system. We have the uterine and ovarian reflexes in abundance; in fact it is getting now to be pretty much a stock in trade with our gynæcological brothers; we have uterine psychosis, and neuroses without number. The danger to be guarded against is to avoid treating every other locality but the exact locality of the disease.

Now it is an undeniable fact, that formerly the potency of reflex action was too much overlooked, and while we should constantly seek for possible sources of reflex irritation when we encounter disease which implicates especially the nervous system in a particular locality, we should not lose sight of the fact as perhaps we are likely to do, because this is a somewhat recent clinical discovery that the disease may have its origin in the place in which we find its symptomatic manifestation. Now how common it is to go to the bedside of a patient, suffering with hysteria, to make the discovery that the disease is not in the brain, but that the ancient conjecture is decidedly correct that it was in the uterus or rather in its appendages? How common is it to find it the fact that a pressure exerted upon the ovary of

an hysterical female during a paroxysm will result in the prompt cessation of the paroxysm, the cardiac irritation, the cardiac palpitation, and cerebral disturbances. Even hystero-epilipsia may be relieved in this way, when it has for its potent cause a congested ovary.

DR. WILLIAMS—Under the head of reflex irritation I will relate a case which may be found of interest. A lady some years ago, living in Frenchtown, had an intense head-ache, supra-orbital neuralgia, so-called, involving the whole surface of the head. She was suffering so severely that she embedded her head between two feather pillows, and could not endure to have the cold air get to her head at all, on account of the intense pain that it caused her. Her daughter happened to be a patient of mine at the time, and one day whilst in my office she told me about her mother's complaint. I asked her a few questions in regard to the complaint and at last inquired whether her mother did not have some bad teeth. She replied "yes," and I advised her to have them extracted, which was done, and was followed by prompt and complete recovery.

DR. BERNAYS—I was called sometime ago to see an actress who was said to have spasms. Upon arriving there I found this lady in the arms of a gentleman belonging to the troupe and she was laughing and crying alternately, and sometimes she would have a spasm. It was evidently an attack of hysterics. I laid her upon a lounge and passing my hand under her garments exercised a deep pressure on the ovary and from that very moment she became as if paralyzed; she stopped crying, became quieted, and fell asleep, and after I had remained there about ten minutes she was still sleeping. Before I left the room I asked one of the gentlemen what had brought on the attack, and he told me that she was engaged to be married to a gentleman who had written to her a letter, breaking off the engagement, and the attack had come on. Now the point is, that this letter would not have *caused* irritation of the ovaries, whilst at the same time pressure on the ovaries released the attack which followed the receipt of the letter. It is very plain, therefore, that the excitement of the nervous system was the source of the ovarian irritation, which was reflected again on the nervous system, producing hysteria, and which being relieved, the hysterical state passed away.

Saturday, May 15, 1880.

Obstruction of the Urethra.

Dr. Bernays reported the following case: I was called last Tuesday to see a patient who had been out on a spree all night, in which he indulged in great sexual excesses. I was told that the patient had been suffering from a complete retention of the urine ever since. I saw the patient, and found a condition of uræmic poisoning, and upon local examination, I found calculus firmly lodged and impacted in the urethra about five or six inches down the meatus, causing complete obstruction of the urethra. The bladder was dilated above the navel and could be felt as a large tumor in the abdominal cavity. I gave it as my opinion that the patient would probably die on account of uræmic poisoning, although his life might have been saved had he called for a physician earlier. But I relieved him somewhat by tapping the bladder above the pubes, emptying its contents, hot applications and morphine (hypodermically).

Upon my return next day there was no amelioration of any of the symptoms. I got every thing ready to cut out the calculus, but when I returned the patient was *moribund*. The specimen is here (it will not detract from the interest of the case to state that the patient was a coach dog.) There is an ulcer at the apex of the bladder ready to perforate. The pelves of the kidneys are filled with calculi, and the calculus which caused the obstruction will be found in the urethra.

Inhalation of Benzoate of Soda.

Dr. McPheeters—The subject of inhalation for phthesis is not a new one. It has been known for the last 50 years, was highly recommended by some, but subsequently abandoned by inquirers. The fact is the lungs are adapted to atmospheric air, and to nothing else. In the three first cases cited by Dr. Porter, I can not, for the life of me, see where there are any grounds for concluding that the benzoate of soda did any good. He used it in addition to other remedies. I should say that if I recollect his treatment of those cases, that the only thing that could be said of the benzoate of soda as regards the improvement in those cases, is, that it did no harm. I can mention two cases very sim-

ilar to those related by Dr. Porter where the condition was quite as marked, which improved under the ordinary treatment for phthisis, without the use of the benzoate of soda, and I think the doctor's treatment would have been quite as successful if he had not used benzoate of soda. In my judgment, any substance introduced into the lungs or bronchi besides *air* is injurious, and only injurious. In very severe cases of affections of the throat and larynx, I have used inhalations of hot water with a little tincture of benzoic acid, which was greatly diluted, and have found some benefit to the results from it, and since then I have been in the habit of using it in phthesis of the throat larynx.

DR. HODGEN—I most heartily endorse the conclusion of Dr. McPheeters, but I find fault with his argument. To simply state that the lungs are adapted to the inhalation of air, and *nothing else*, is not to prove that it is the truth. To insist that because the lungs are *adapted* to the inhalation of air and nothing else, that therefore, the inhalation of benzoate of soda could do nothing *else* but harm, is unwarranted.

DR. RUMBOLD—I think that Dr. McPheeter's is right in saying that the normal fluid of the lungs is air, and even if Dr. Porter did give relief from inhalation of benzoate of soda, it was only by substituting an agent that had a less irritating effect on the lungs than the disease itself. The patient would have been injured by the inhalation of the benzoate of soda if he had been entirely healthy; but when the lung is diseased, the remedy given, especially as it is an anti-zymotic, may prevent the irritating secretions from injuring the patient, and thus help him.

SOUTHERN ILLINOIS MEDICAL ASSOCIATION.

The Management of a Difficult Labor. By D. S. Booth, M. D., of Sparta, Ill.

About 5:30 A. M., September 18, 1879, a courier handed to me a note, the contents of which were as follows: "Dr. Booth—Dear Doctor: Come immediately to Mr. John W.'s to meet Dr. Homan and self, to deliver his wife. It is a shoulder presentation, and the child must be separated to be delivered. So bring instruments for the purpose. Signed: Homan & Wilson." At or about 6:30 A. M. I arrived at the house designated in the note, and proceeded to make a full and complete examination of the patient with the following result.

Mrs. W. was a multipara, this being her second child, aged about twenty-five years, and a very large, muscular woman.

At the time of my arrival she had been in labor about 72 hours. During the first 48 hours she had been in the charge of a midwife, who, becoming alarmed at the delay, sent for Dr. Wilson. After the doctor's arrival, he made a number of unsuccessful efforts to deliver, by the usual means, and then he sent for Doctor Homan, and the two physicians, after numerous unsuccessful efforts to relieve the patient, sent for me. Upon making a vaginal examination, I found the left arm entirely without the vulva, cold and almost black; the right hand was also without the vulva, and no radial pulse in either. The left axilla under the symphysis of the pubes; and the right axilla beneath or below the promontory of the sacrum; the back of the fœtus to the right ilium, the abdomen to the left. This presentation could not be called a dorso-pubic, neither could it be called a dorso-sacral, as the the shoulders occupied the antero-posterior or conjugate diameter of the inlet. This will be easier understood when we consider that the patient had a very pendulous abdomen, and that the long axis of the fœtus was at an angle of about 45 degrees to the plane of the inlet, presuming the pelvis to stand at an angle of about 160 degrees to the horizon. I am led to believe that both shoulders entered the inlet in the oblique diameter, or more properly, one, then the other followed; and that after the rupture of the membranes, which took place

some fifty-two hours before my arrival, the fœtus was forced by the tetanic contractions of the uterus downwards, and with the resistance offered by the head of the child at and over the left coryloid fossa or acetabulum, the fœtus was made to rotate until the axillæ were made to occupy the places above described or given. Be this as it may, they certainly occupied the point designated at the time of my first examination, and this I regret, as I cannot find a similar case described by any author at my command.

At the time of my arrival the mother's decubitus (at the time of my arrival at her bed-side) was upon her back, and her position did not make any perceptible difference in the position of the fœtus, that is, as to the uterine angle. I did not use the binder, or the pillow. The first I thought to be contra-indicated at the time, by reason of the extreme tenderness of the parts concerned in action, and the powerful tonic contractions of the uterus, and pressure would have certainly aggravated the latter; and as to the pillow, I did not believe that it was indicated in this case, from any logical standpoint.

The chin and face of the child were almost flattened against the breast of the fœtus, by the tetanic throes of the uterus. The acronion process of the left scapula was well marked, and the most dependent, the spine of the left scapula, easily made out, as also the clavicle of the same side, the first to the right and the latter to the left ilia. By placing the fore-arm of the presenting arm in the *supine* position, *the thumb was directed to the patient's right thigh, and the little finger to the left.*

It is said that under these circumstances the transverse diameter of the uterus can be recognized as greater than the longitudinal, by external taxis: (Hodge.) But this would not apply in this particular case, for the several reasons given above, and I very much doubt the force of its application in very large, fleshy women, as this one was. The spinous processes of the upper dorsal and the lower cervical were very prominent, more particularly the spinous process of the vertebra prominens, of the seventh cervical. It felt almost like a morbid exostotic growth, and situated nearly in the center of the parturient canal, laterally and longitudinally.

The funis was also presenting, several inches of which was hanging without the vulva, cold and without pulsation. The pelvis was of good capacity and well formed, and the soft parts

fully dilated and quite soft. After making certain that the bowels and bladder were clear, and there was not any contra-indication to the use of an anæsthetic, we placed her upon her breast and knees, and then proceeded to give her chloroform to profound anæsthesia, short of stertorous breathing, after which I proceeded to practice the bimannel proper, and then the internal and external bi-polar, or more correctly speaking, the different forms of the bi-polar methods of turning. I have no doubt, but some gentleman present may doubt the propriety of either of these methods in this case at this stage of affairs, first because the liquor amnii had all drained or passed off many hours before, in fact, near the beginning of her accouchment, and further, the uterus was firmly contracted concentrically and longitudinally about and around the child. I will answer why through Dr. Barnes. He says: "But I am in a position to state that among upward of one hundred and fifty cases of turning of which I have notes, there was scarcely one in which I did not turn the bi-polar principle to more or less advantage; and in not a few cases of extreme difficulty from spasmodic concentric contraction of the uterus upon the fœtus, with jamming of the shoulder into the pelvis, where other practitioners had been foiled, I have, by judicious application of this principle, turned and delivered safely."

The child being dead, head-turning could avail nothing to the advantage of the child, but, gentlemen, please remember I was very willing to accept either head or feet-turning, and that too, by the easiest, simplest and quickest method or route known.

The physicians who preceded me had attempted to decapitate before sending for me, but had failed for the want of the "necessary instruments," so they informed me; and this attempt might have had something to do with the condition of things at the time of my arrival, viz., changing a curve into an angle, or it might have been caused by the powerful and prolonged uterine contractions, but I believe the most probable cause to have been pulling at the child's arms, hoping to deliver by this means before sending for a physician. This, of course, means an allusion to the midwife.

She might have succeeded in pulling off both arms, but she could not have delivered this child by that method, as the fœtus was very large. I estimated it to weigh not less than twelve pounds.

I soon found that the fœtus was so impacted and wedged into the pelvis that it was impossible to dislodge it; with one hand within the vagina, and the other upon the abdomen over the fundus of the uterus, acting together, but in contrary directions, I failed to make any impression upon the presenting part or fœtus. I even failed to return the arms or hands into the uterus.

At this stage of the proceeding I concluded to attempt to practice version by the usual method, and this I found to be impossible, by reason of the pelvis being already fully occupied by the child.

The child being dead, and in fact had been for many hours before my arrival upon the battle field (please allow me this little bit of pleonasm), I amputated the left arm at the shoulder, and again attempted the bi-polar method, but without avail. Then I tried to introduce my hand to turn, but I found it impossible, for the reason before given. I then amputated the other arm at the shoulder; after which I introduced, with much difficulty, my right hand up to the feet of the child; but, owing to the powerful uterine contractions, my hand and arm was completely paralyzed: even the sphincter vagina would constringe (so appeared to me) my arm like a cord, and I was powerless to do anything. At this stage of the proceeding I found a new difficulty, in the position of the child's feet. They were crossed and locked, and occupied the highest part of the fundus of the uterus, and forced down upon and across the child's buttocks. After making a number of unsuccessful attempts to bring down the feet, I thought I would try a little strategem. I introduced a long blunt hook up along the side of my arm, as a guide, until it reached the popliteal space of one of the child's legs, the one easiest reached, passed the hook behind the same, and with the fingers of the hand within the uterus, as a protector to the soft parts of the mother, I succeeded in bringing down one leg, and immediately afterwards the foot of the same. I threw a clove hitch around the ankle of this leg, and then attempted, by a combined action of both of my hands, one within to force the presenting part upwards, and the other grasping the ankle to turn, but in this I signally failed to make any impression upon the position of the child. I should also state, that Dr. Homan rendered me all the assistance in his power, by external

manipulation, but our combined efforts proved insufficient to dislodge the child from the grasp of the uterus.

When the child in utero is living, I make it a rule to seize and bring down a knee, in preference to a foot, and that one which is farthest away. But when the fœtus is dead it is best to bring down both legs; here the spine has lost its elasticity, the body will hardly turn, and there is nothing to be gained for the child in maintaining the half-breach and preserving the cord from pressure.

At this stage of the proceeding I became exhausted, and Dr. Wilson coming in fresh, I directed him to introduce his right hand, following the cord, foot, leg and thigh of the limb then under control, until he should find the other limb, and, when found, bring it down. After great labor he succeeded in doing so; when I again took charge, and delivered the child without much more trouble.

There are several unique, at least rare points, belonging to this case. I shall take them up numerically, hoping to provoke discussion upon them, that I may be benefitted thereby.

1st—The presentation: of this I have probably said enough.

2d—The position of the uterus in respect to the antero-posterior plane of the inlet of the true pelvis, produced, I think, by the pendulous abdomen. This case would be classed with the "Cross Births of Hippocrates." The axes or long diameter of the fœtal oval is thrown across the womb — the most unfavorable position which could by any possibility be selected. (See "Leishman's System of Midwifery," America edition of 1876, page 341.) This is the universal opinion of writers from the birth of medicine to the present time.

3d—The ovoid, if I may be allowed to so designate it, being downwards and forwards, and not transverse, as given by writers generally.

4th—The position of the lower extremities of the fœtus. Being placed at the farthest point possible from the vulva, it made it very difficult to reach them; in fact, it required the introduction of the entire length of my arm to do so.

5th—The tetanic like contractions of the uterus throughout her entire accouchment, even under forbidding conditions, viz.: The fœtal position was against it; Thomas' knee and elbow, or breast position, was also against it; and, lastly, at the time and during the profound anæsthesia.

Dr. Barnes' article, "Pendulous Abdomen in Labor," says that the uterus, if not paralyzed, acts in a wrong direction. It loses the stimulus to action, which the normal pressure and support of the diaphragm and abdominal walls supply, and therefore acts languidly.

"Its independent power is also weakened by another circumstance. It is a law of which in the progress of difficult labor, that whensoever a mechanical obstacle is encountered, before long, the uterus, conscious, as it were, of the futility of its efforts, intermits its action, takes a rest, lies dormant, until the time shall arrive when it can act with advantage." And Dr. Barnes furthermore states, pages 96 and 97: "Until the uterus is brought back to its normal position, it is clear that two causes concur to render labor difficult: First, the uterus being thrown forward, its fundus carried away from the diaphragm and upper part of the abdominal walls. It loses, therefore, the aid which the expiratory muscles, acting powerfully when the glottis is closed and the chest is fixed, usually give. This expellant power of the expiratory muscle is so great that it appeared to be of itself sufficient in some cases to complete labor, the uterus remaining quite passive. When the uterus is thrown forward across the pubes, any force propagated downward from the diaphragm will strike the posterior wall of the uterus at a right angle with the body of the uterus and of the long axis of the fœtus. It will, in short, drive the uterus and its contents upon the symphysis, or even more forward still, since the body of the child, which lies in front of the symphysis, forms the longer arm of a lever, and the force is expended upon it."

Thomas' "postural treatment" was first recommended in the treatment of prolapsed funis, partly from the standpoint of gravity, and partly as a check to uterine action. As to the therapeutical action of anæsthetics in such cases, the medical profession are divided, and the matter is *sub judice*. This patient died three days after delivery, of septicæmia. At the time of delivery the discharges from the uterus were so acrid, that I was very severely poisoned, and had taken unusual care to protect myself against such a very probable contingency.

We are told that shoulder presentations occur about once out of every 260 cases of labor. The prognosis as given of 235 cases, is one in nine of the mothers, and half of the children are lost.

The prognosis in each individual case varies with the time of delivery, at which the discovery is recognized, and relief tendered by the accoucheur. From this, gentlemen, we can see the importance of recognizing such presentations early, even before the rupture of the membranes, and when discovered, act promptly. Knowledge and courage are the important factors in the accoucheur at such times. Playfair has considerable to say about "abdominal palpation" in the detection of the position of the fœtus in utero. In thin subjects, or those only moderately fleshy, it will no doubt apply, but in such subjects as the one above described, and in the kind of presentations here given, I would not risk an opinion upon it alone.

As to the vaginal, or more correctly, the presenting landmarks, I will not say anything; as all writers upon obstetrics give plain, practical common sense rules, that are easily understood and followed. There is one point belonging to shoulder presentations that I feel like alluding to ere I quit this subject, even at the risk of tiring your patience, and that is this, the so-called spontaneous evolution of Denman.

I believe that any medical man who willfully waits, and thus loses valuable time, in expectation of, as unlikely or at least as uncertain a change as this, should be held criminally responsible. Spontaneous evolution in a full grown fœtus, at full term, is, I think, a myth, or at least very rarely occurs.

Dr. Hodge doubts whether Dr. Denman ever met a case of spontaneous evolution, but that his cases were all versions. Dr. Barnes regards the process described by Denman as true version or turning, and Dr. Barnes furthermore says that all German, French, Italian and Dutch authors apply to this process the term "spontaneous version" *Versio spontanea*. He says, it might be called natural version, to distinguish it from artificial version," effected by the hand.

All Continental authors likewise call Douglas' process by the name of "spontaneous evolution," the process being one of unfolding, as it were, of the doubled-up fœtus. And medical men should ever keep in mind, that true spontaneous evolution is death to the child. "A living child is favorable to version, a dead one to evolution."

Gentlemen, in conclusion allow me, an humble member of the medical profession, to say *labor ipse voluptas, labor omnia vincit*, labor is indeed a pleasure, more particularly when di-

rected to the relief of our kind, and labor frequently conquers. It is indeed a pleasure to be able to step to the bedside of the sick, armed *cap-a-pie*, knowing our whole duty, and having the courage to perform it. And now gentlemen let us all adopt this motto: *Nunquam non paratus.*

Clinical Reports from Private Practice.

CASE OF TREPHINING THE SKULL, FOR THE RELIEF OF TRAUMATIC EPILEPSY. By D. N. RANKIN, A. M. M. D., Allegheny, Pa.

Charles H. Poole, male, white, 34 years of age, born in France, unmarried, and by occupation a butcher; complexion, eyes and hair, dark.

In October, 1857, he was regularly enlisted in the Fourth United States Artillery; served five years in it; then re-enlisted in 1862 in Washington, D. C., in the Third United States Mounted Rifles; whilst on duty in the rear of Petersburgh, Va., May 9, 1864, he was struck upon the forehead by a minnie ball, and lay for some hours upon the ground in an insensible condition, before reaction supervened. He was then carried to the Cavalry Corps Hospital, at City Point, Va., and upon examination, there was found to be considerable indentation of the skull at the wounded point. Symptoms of compression being present, the surgeon in charge of the hospital at once performed the operation of trephining upon him, which relieved the violent symptoms, but did not completely cure him. He remained at the hospital for sixteen days. One night, in his anxiety to rejoin his regiment, he stole off from the hospital, unauthorized by the surgeon, returned to his regiment, and resumed his regular duties as a private, served out the full term of his second enlistment, and was honorably discharged in May, 1865.

About one year after his final discharge from the army, he commenced to lead a wild and intemperate life. In June, 1866, the first convulsion of an epileptic character occurred, and after that one fit occurred every three months, for the first year, then they become more frequent, until finally they recurred every tenth day, and, within the past six months, they have been coming on so frequently, that he had become tired of living, and frequently earnestly requested me to cut down and remove the depressed portion of bone. This I would not undertake unless, upon consultation with some other surgeon, it should be considered justifiable. On May 25th, Dr. John Dickson, Sr., an eminent surgeon of Pittsburgh, Pa., was called in consulta-

tion. After having heard the history of the case and carefully examining the condition of the patient, I was pleased to find that his diagnosis agreed in every respect with mine, and that, therefore, in his opinion, no medical treatment could be available, and the only chance of curing the disease would be the removal of the affected portion of bone from the skull.

Therefore, on June 10, at nine o'clock, assisted by Dr. Dickson, I proceeded to remove the portion of depressed bone. On the day previous to the operation, I ordered his nurse to give him a dose of sulphate of magnesia, and have the hair from the front part of the head cleanly shaven off. During the operation he laid upon a table, on his back, with head and shoulders resting upon a hard pillow. Chloroform was administered, and it was after some considerable trouble and delay, that perfect anæsthesia was procured.

The bone was exposed by a crucial incision a little to the left of the frontal sinus; the length of the perpendicular cut was about three inches, and that of the transverse one was about two inches. The incisions bled quite freely; the flaps were carefully dissected up, and great care was taken to remove the pericranium. It was necessary to use the the trephine four times in order to sufficiently remove the depressed bone. The point trephined first was a little to the left of the frontal sinus; the second place trephined was a point about one and three-fourths inches to the left of the first; the third about two and one-half inches higher up the forehead, and the fourth directly above the first, the same distance from the first as the second is from the third. Then, in order to remove the oblong piece of bone, Hays' saw came nicely into use. In this way, we succeeded in removing a section of bone, say two and a half inches long, by one and three-fourths of an inch wide. It required the greatest care and patience to separate the membranous lining of the skull.

The removal of the depressed bone brought to view a nipple-shaped piece of bone, protruding from the internal surface, which undoubtedly was the sole cause of the trouble. The flaps were drawn together by adhesive plasters, allowing the lower end of the perpendicular cut to remain open for the exudition of any pus that might form. The dressing consisted in the application of carbolized water alone.

June 11 — Slept quite well during last night; quiet most of the day, from the effects of opium taken last night. In the evening, about 8 o'clock, had an epileptic convulsion, but much lighter than usual. Pulse, 72. Diet, tea and toast.

June 12 — Rested pretty well through last night. Pulse, 74. Rested well throughout the day; gave a dose sulphate of magnesia in the evening; complains of considerable pain in head, and is some somewhat restless; at 9 o'clock P. M. gave him 30 drops tr. opium; diet, same as yesterday.

Case of Fracture and Dislocation of the Spine. By Charles Black, M. D., of St. Louis.

Jacob Cole, a native of Germany, 54 years of age, and a watchmaker by trade, was admitted to the City Hospital, on the 15th of April, 1880, and assigned to the division then under my charge. He stated that four months previously a team, which he was driving, ran away; he was thrown out of the wagon, the back of his *head and neck* striking against the frozen ground. He was picked up, though not unconscious from his fall, and having rested in bed all night, he drove a distance of four or five miles to his home next day, feeling sore, but able to move about and use all his limbs, except so far as the generally bruised condition of his body presented. Since his accident he has suffered from attacks of giddiness (his first attack occurring on the evening of his arrival at home), and while so affected, surrounding objects lost their sharpness of outline, but otherwise were distinctly visible. He complains of a feeling of coldness and numbness, at one time beginning in the left foot and traveling up the left leg and side, and at another commencing in the fingers of the left hand and extending up the arm and shoulder. This feeling would occasionally be confined to the little and ring fingers and the inner side of the forearm and arm, or to the thumb, fore and middle fingers, and outer side of the limb; while sometimes the middle and ring fingers only would be affected. These sensations appeared irregularly, and alternated with others;—at times he felt as if his muscles were being stretched and torn, with ringing in his ears; his left leg sweated considerably, while sweating was not appreciable on the right.

On examination I found an abnormal prominence and mobility upwards and towards the right of what appeared to be the spinous process of the fourth cervical vertebra. I showed the case to the Superintendent, Dr. D. V. Dean, who directed the patient to be brought into the surgical clinic before Dr. John T. Hodgen. This was done next day, and Dr. Hodgen, on examination, directed attention to the following: On introducing the forefinger into the pharynx, a well marked prominence could be felt, evidently the projection of a body of one of the vertebræ, probably the third. The injury was presumably a fracture of the spinous process or laminæ of the fourth, with a dislocation forwards of the third cervical vertebræ, resulting in a sub-acute myelitis.

The patient, at his own request, was discharged next day, his appetite and general health being good.

Book Reviews.

A Manual of Examination of the Eyes. By Dr. E. Landolt. Translated from the French by Swan M. Burnett, M. D. 8vo.; pp. 312. [Philadelphia: D. G. Brinton. 1879.]

This book, which is in the form of a course of 24 lectures, said to have been delivered before a class at the *école pratique*, in Paris, leads the reader pleasantly and somewhat rapidly over a rather wide range of subjects, any one of which might afford the material for a separate monograph. For the ophthalmic specialist, or even for the special student of ophthalmology, it is necessarily too superficial to be of much value, while for the general practitioner it must needs be supplimented by other works devoted, respectively, to the anatomy, physiology, pathology, therapeutics, and operative surgery of the eye. Of the character of the work there is little to be said but in its praise, whether as regards the judicious balance of its parts or the generally accurate and lucid way in which its several subjects are treated. To the physician who has the means and inclination to provide himself with more than the single fundamental text book which is generally made to fill the ophthalmological alcove in the professional library, Dr. Landolt's book may be warmly recommended, as both interesting in itself, and, especially, as affording indication of the scope and accuracy of the work which now falls to the share of the educated ophthalmic practitioner.

John Green.

American Health Primers — Eyesight and How to Care for It. By George C. Harlan, M. D., Surgeon to the Wills' Eye Hospital, Etc. [Philadelphia: Lindsay & Blakiston, 1879. Small, 12mo.; pp. 139.]

In this little volume Dr. Harlan has given the best popular *résumé* that we have seen of such facts, relating to the anatomy, physiology, pathology and hygiene of the eye, as are likely to interest and profit the intelligent general reader. The book is not in the least calculated to make "every man his own eye doctor," but it will serve the infinitely better purpose of teaching that certain imperfections and disabilities, connected with the use of the eyes, are both amenable to proper treatment, and often dangerous to neglect. It teaches also another lesson, viz.: that the injudicious selection and use of spectacles and eye-glasses may be productive of great and even irremediable mischief, and that the watchmaker and jeweller, or even the special vendor of spectacles, thermometers and opera-glasses (the so-called "optician") is presumably not better qualified to

prescribe glasses than is the country storekeeper or the city "apothecary and chemist," to prescribe the medicine which it is his business to sell or to compound.

Dr. Harlan tells us (p. 30) that "infants do not shed tears before the third or fourth month." We have seen the phenomenon in infants less than a month old, and believe that it ordinarily occurs within the first month of life. On page 101 he says: "Spectacle lenses are usually made of crown or flint glass: the former is less expensive, but is softer and more easily scratched." The facts are that crown-glass is harder than flint glass, and that flint glass is not used for spectacles.

JOHN GREEN.

Books and Pamphlets Received.

Contributions to Gynæcology No. X. 1—Fibro-sarcomatous tumor of the Uterus. Operation; recovery. 2—Cancer of the Rectum. Excision; recovery. By John Byrne. M. D., R. C. S. E. Reprinted from the annals of the Antomatical and Surgical Society. Brooklyn, N. Y.

Further Contribution to the Study of Fracture of the Inferior Extremities of the Radius. Differentiation of Longitudinal and Transverse Fracture, and the causes which produce them. By L. S. Pilcher, M. D. Brooklyn, N. Y.

Time of Conception and Duration of Pregnancy. By Geo. J. Engelmann, M. D., of St. Louis.

Transactions of the American Gynæcological Society. Vol. IV. For the year 1879.

The Bromide of Ethyl as an Anæsthetic. By J. Marion Sims, M. D.

A Guide to the Practical Examination of Urine. For the use of Physicians and Surgeons. By James Tyson, M.D., Phila.

Clinical Notes on the Elongation of the Cervix Uteri. By Wm. Goodell, A. M., M. D. Philadelphia.

Kolpo-Cystotomy by Electro-Cautery, with remarks on other methods of operating. By John Byrne, M. D.

Rules and Regulations of the Board of Health, State of Louisiana. New Orleans.

Report to his Excellency, the Governor. The Thirty-Eighth Missouri University Catalogue. 1879–1880.

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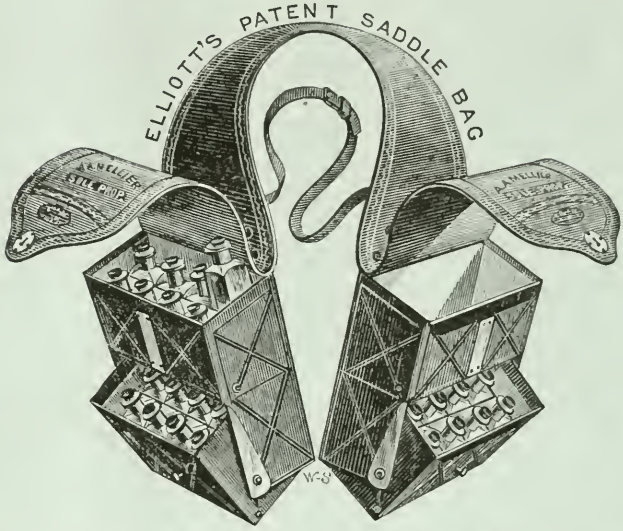

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